least one of the photo-conductive cells is energized and the circuit associated with the second set of photoconductive cells is an "OR" circuit giving an output only when the corresponding electronic registering means associated with the touched area and photo-conductive cells are both energized.

6. A touch detecting teaching machine according to claim 1, wherein there is additionally provided a performance level computer whereby the performance of the subject is computed, said computer comprising an electrical charge storing device; means for adding a fixed amount of charge thereto if a correct response is given; means for subtracting a given percentage of the total charge remaining in the electrical charge storing device at each cycle in the operation of the machine; and means for continuously comparing the charge in the electrical charge storing device with a set criterion in order to assess the subject's progress.

7. A touch detecting teaching machine according to claim 5, wherein each photo-conductive cell charges a 20 capacitor through a contact of a relay associated with the appropriate registering means, said contact having a second position into which it may be switched by the relay when energized to permit the capacitor to discharge

thus giving an output voltage pulse.

8. A touch detecting teaching machine according to claim 1, including a projector having an automatic continuous slide changing mechanism, wherein the means for giving an audible indication comprises a tape recorder having a tape closed on itself to form an endless 30 EUGENE R. CAPOZIO, Primary Examiner loop, said tape recorder being caused to operate for a given short interval of time whereby an audible word

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is spoken if the correct item on the screen is touched, the audio output to a speaker passing through a relay contact which is only closed if the related item has been touched.

9. A touch detecting teaching machine according to claim 8, wherein the tape of the tape recorder has two channels, one of said channels being used to record spoken words relating to the correct item on each slide and the other having a series of synchronization pulses recorded thereon for the purpose of operating the slide advance mechanism of the projector after a given delay.

10. A touch detecting machine according to claim 8, wherein the tape of the tape recorder has two channels, one of said channels being used to record spoken words relating to the correct item of each slide and the other having a series of synchronization pulses recorded thereon for the purpose of firstly operating the slide advance mechanism of the projector after a given delay and secondly operating a relay which has a contact in the high tension supply to electronic circuits constituting the registering means whereby said circuits are de-energized after each operation of the machine.

References Cited

UNITED STATES PATENTS

Re. 23,030 8/1948 Holt _____ 35—9 X 3,382,588 5/1968 Serrell et al. _____ 35-9

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